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| 10/655,111 | 09/02/2003 | Sheng-Yuan Cheng | 33038-405900 | 6877 |
| 27717 7590 04/25/2007 SEYFARTH SHAW LLP 131 S. DEARBORN ST., SUITE2400 CHICAGO, IL 60603-5803 | | | EXAMINER MEW, KEVIN D | |
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Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 7, 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Myles et al. (USP 7,151,945).

Regarding claim 1, Myles discloses an apparatus for generating a control signal of a target beacon transmission time, comprising:

a timing synchronization timer (timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

a comparator (MAC administrator, element 302, Fig. 6) for comparing the time of the timing synchronization timer (comparing TSF) with a predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10), and generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10); and

an adder (TxHw, element 316, Fig. 6) for setting the next target beacon transmission time (setting the $TSF_{beacon\ out}$, Fig. 5) by adding a beacon interval (adding $T_{offset\ out}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{local} + T_{offset}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon

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transmission time is generated (when the beacon is generated, Fig. 6).

Regarding claim 2, Myles discloses the apparatus for generating a control signal of a target beacon transmission time of Claim 1, wherein the adder comprises an arithmetic enablement switch, which performs an addition operation when the control signal of the target beacon transmission time is generated (the TxHw 316 performs an addition operation of TSF_{offset} out to the TSF when the beacon is generated, col. 12, lines 13-25 and Fig. 6).

Regarding claim 3, Myles discloses the apparatus for generating a control signal of a target beacon transmission time of Claim 1, wherein the adder comprises:

- a first input port for receiving the predetermined target beacon transmission timer (a first port for receiving T_{offset});

- an output port electrically connected to the comparator (an output port of TxHw 316, Fig. 6); and

- a second input port electrically connected to the output port (a second input port from Register 322 to be electrically connected to the output port of TxHw 316, Fig. 6).

Regarding claim 7, Myles discloses an apparatus for generating a control signal of a target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6), electrically connected to a host setting a predetermined target beacon transmission time, the apparatus comprising:

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a timing synchronization timer (timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

a comparator (MAC administrator, element 302, Fig. 6) for comparing the time of the timing synchronization timer (comparing TSF) with a predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10), and generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10); and

an adder (TxHw, element 316, Fig. 6) for setting the next target beacon transmission time (setting the $TSF_{beacon\ out}$, Fig. 5) by adding a beacon interval (adding $T_{offset\ out}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{local} + T_{offset}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon transmission time is generated (when the beacon is generated, Fig. 6).

Regarding claim 13, Myles discloses a method for generating a control signal of a target beacon transmission time, comprising the steps of:

setting a predetermined target beacon transmission time (setting TBTT, col. 12, lines 1-10 and Fig. 6);

reading the time of a timing synchronization timer (reading timing synchronization function TSF, col. 12, lines 1-10; note that TSF is equal to the sum of $TSF_{local} + T_{offset}$);

comparing the time of the timing synchronization timer (comparing TSF) with the predetermined target beacon transmission time (with TBTT, col. 12, lines 1-10 and Fig. 6); and

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generating a control signal of the target beacon transmission time (generate a beacon that is ready for transmission, Fig. 6) if the comparison is equivalent (TBTT is when TSF some multiple of a beacon period, col. 12, lines 1-10).

Regarding claim 14, Myles discloses the method for generating a control signal of a target beacon transmission time of Claim 13, further comprising the step of:

setting the next target beacon transmission time (setting the $TSF_{\text{beacon out}}$, Fig. 5) by adding a beacon interval (adding $T_{\text{offset out}}$) to the predetermined target beacon transmission time (to the TSF/TBTT; note that TSF is the sum of $TSF_{\text{local}} + T_{\text{offset}}$, col. 12, lines 13-25 and Fig. 6) when the control signal of the target beacon transmission time is generated (when the beacon is generated, Fig. 6).

Allowable Subject Matter

2. Claims 4-6, 8-12, 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 4, the apparatus for generating a control signal of a target beacon transmission time of Claim 3, further comprising:

a register for storing the value of a beacon interval; and

a multiplexer electrically connected to the adder, including:

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a first input port for receiving the predetermined target beacon transmission time;

a second input port electrically connected to the register; and

an output port electrically connected to the first input port of the adder.

In claim 5, the apparatus for generating a control signal of a target beacon transmission time of Claim 1, further comprising a loss detector electrically connected to an output port of the comparator.

In claim 8, the apparatus for generating a control signal of a target beacon transmission time of Claim 7, wherein the comparator comprises:

a first input port electrically connected to the timing synchronization timer;

a second input port electrically connected to the adder for receiving the predetermined target beacon transmission timer; and

an output port for outputting the control signal of the target beacon transmission timer.

In claim 11, the apparatus for generating a control signal of a target beacon transmission time of Claim 7, further comprising a loss detector electrically connected to the output port of the comparator.

In claim 15, the method for generating a control signal of a target beacon transmission time of Claim 13, further comprising the step of:

resetting the predetermined target beacon transmission time if the control signal of the target beacon transmission time is not generated after a predetermined time.

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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Seema S. Rao
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